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REMARKS

Claims 1-21 are pending in this application, of which claims 1, 6, 12, 17 and 21 being independent. Claims 6-11 and 17-21 have been withdrawn from consideration in prosecution of the present application.

Claims 1 and 12 have been amended to clarify aspects of the present application. Support for the amendments to claims 1 and 12 is found, for example, on page 8, lines 22-23 and Table 1 of the present application. No new matter has been entered. Applicants respectfully submit that all pending claims are patentable over the cited prior art.

Claim Rejection – 35 U.S.C. § 103

Claims 1-3 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 03/086971 ("Starchenko") and further in view of U.S. Patent Publication Number 2005/0110024 ("Swain"). Claim 4 and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Starchenko in view of Swain, and further in view of WO 2004/046062 ("Akaishi"). Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 2001-021521 ("Meidensha"). Claims 13 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Meidensha, and further in view of Swain. Claims 15 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Meidensha, and further in view of Swain. Claims 15 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Meidensha and Swain, and further in view of Akaishi. Applicants respectfully traverse this rejection for at least the following reasons.

Regarding independent claim 1, Applicants respectfully submit that Starchenko and Swain, or any other cited references, fail to disclose that a particle of the diamond includes at least 100 ppm and at most 1,000 ppm of boron and the boron is included in a lattice site of the particle of the diamond. Applicants note that the boron concentration between 1 to 20 ppm in

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Swain is the concentration of B₂H₆ with respect to the source gas mixture (see, paragraph [0034] of Swain), but is not the concentration of boron in the diamond particle. As such, it is clear that none of the cited references, taken alone or in any combination thereof, renders claim 1 or any claim dependent thereof obvious.

Regarding independent claim 12, Applicants respectfully submit that Meidensha, or any other cited references fail, to disclose that a particle of the diamond includes at least 1,000 ppm and at most 100,000 ppm of boron and the boron is included in a lattice site of the particle of the diamond material. Applicants note that the boron concentration of 10⁴ ppm in Meidensha is the concentration of B with respect to C (B/C) in the mixture of B₂O₃ and acetone and methanol, i.e., the source material (see, paragraph [0026] of Meidensha), but is not the concentration of boron in the diamond particle. As such, it is clear that none of the cited references, taken alone or in any combination thereof, renders claim 12 or any claim dependent thereof obvious.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejections of claims 1-5 and 12-16 under 35 U.S.C. § 103(a).

CONCLUSION

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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